



Ada County



April 2012

Pest of the Month

A quick guide to identifying and controlling invasive plants and animals found in the county

MUSK THISTLE

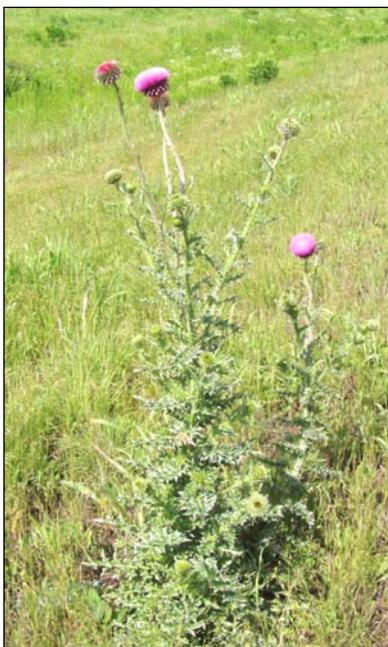
Musk Thistle (*Carduus nutans*) is a member of the sunflower family Asteraceae. It is a biennial herb with showy red-purple flowers and sharply spiny stems and leaves. It is native to much of Europe and Asia except for the far north. Mature plants range in height from 1-1.5 m tall and have multi-branched stems.

The leaves are dark green, coarsely bipinnately lobed, with a smooth, waxy surface and sharp yellow-brown to whitish spines at the tips of the lobes. They are more or less hairy on top, and wooly on the veins below.

The large globose flower heads, containing hundreds of tiny individual flowers, are 3–5 cm (rarely to 7 cm) diameter and occur at the tips of stems.



Quick Facts



Musk Thistle flower heads commonly droop to a 90° to 120° angle from the stem when mature, hence its alternate name of "Nodding thistle".

Flowering occurs from late spring to late summer, and seed dissemination occurs approximately one month after the flowers form. A single flower head may produce 1,200 seeds and a single plant up to 120,000 seeds, which are wind dispersed. The seeds may remain viable in the soil for over ten years, making it a difficult plant to control.

Musk thistle was introduced into the eastern North America in the early 19th century and has a long history there as an invasive species. It has been declared a noxious weed in Australia, many U.S. states and Canadian provinces. Some farmers spend many hours attempting to rid them from farm ground, mostly pastures. It is equally noxious to farming operations in New Zealand.

See control methods on other side...

How to Control

The key to successful musk thistle control is to prevent seed production.

Apply herbicides such as Tordon, Milestone, Transline, Vanquish/Clarity or 2,4-D to musk thistle rosettes in spring or fall. Apply Escort or Telar up to the early flower growth stage. Combine control methods into a management system for best results.

Cultural control. Maintaining pastures and rangeland in good condition is a primary factor for musk thistle management. To favor pasture and rangeland grass growth, do not overgraze. Fertilize only when necessary and according to soil testing recommendations. To successfully manage musk thistle, prevent seed formation.

Mechanical control. Musk thistle will not tolerate tillage and can be removed easily by severing its root below ground with a shovel or hoe. Mowing can effectively reduce seed output if plants are cut when the terminal head is in the late-flowering stage. Gather and burn mowed debris to destroy any seed that has developed.

Chemical control. Several herbicides are registered in pasture, rangeland and noncrop areas to control musk thistle. Tordon 22K (picloram), Milestone, Transline, Banvel/Vanquish/Clarity (dicamba), 2,4-D, or Banvel/Vanquish/Clarity plus 2,4-D are commonly used. Apply these herbicides in spring or fall to musk thistle rosettes. Applications during the reproductive growth stages with these herbicides (bud through flowering) will not eliminate viable seed development.

Escort (metsulfuron) or Cimarron Extra (chlorsulfuron) also can be used in pastures, rangeland, and non-crop areas. Research shows that chlorsulfuron or metsulfuron prevents or dramatically reduces viable seed formation when applied in spring, up to early flower growth stages. The latest time to apply these herbicides is when developed terminal flowers have opened up to the size of a dime.



Source: Colorado State University

Note: Chemical control of any weed can be difficult and confusing. If you are not experienced in chemical control or do not understand the product label, you should consult a licensed applicator to assist you. Inappropriate application can kill desirable vegetation, and may violate federal law.



For questions and concerns, please contact:

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